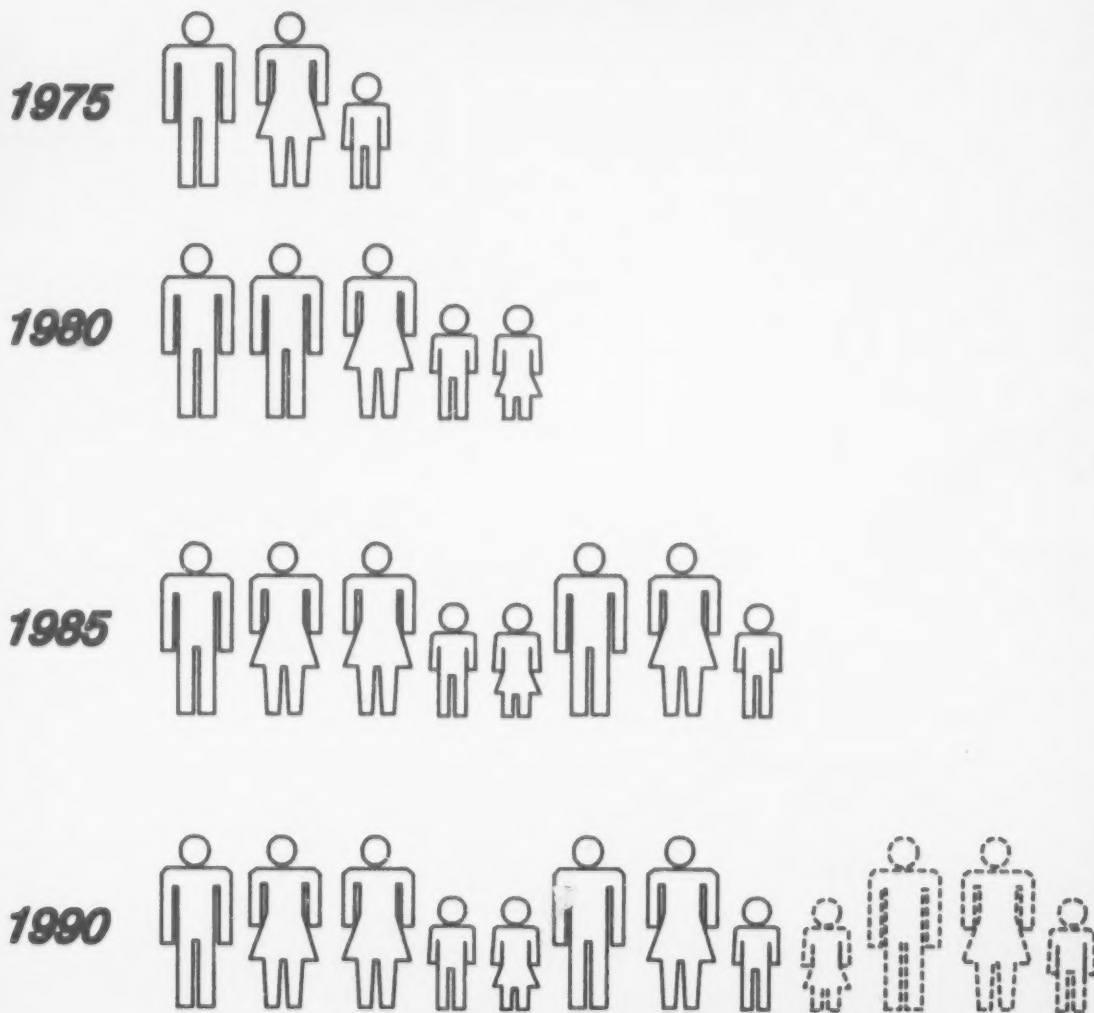


RHODE ISLAND'S HEALTH 1989

THE UNINSURED POPULATION IN RHODE ISLAND



OFFICE OF HEALTH STATISTICS
RHODE ISLAND DEPARTMENT OF HEALTH

To
The Honorable Edward D. DiPrete, Governor
and
Members of the General Assembly

At this time I respectfully submit to you Rhode Island's Health, a report on the health of the people of Rhode Island. This publication is the eleventh published under this title which describes the health of the state's population. Rhode Island's Health is intended to help identify strengths and weaknesses in the health status of Rhode Islanders as well as in the health care resources available to serve them. The information presented can help in determining health priorities and monitoring progress in promoting health and improving access to affordable, high-quality health care.

Most of the data presented here result from the cooperative efforts of public and private agencies under the leadership of the Rhode Island Department of Health. Rhode Island's comprehensive health database has been maintained over many years. As needs change and new needs arise, a continuing commitment to its maintenance and extension is required. Timely, accurate information is essential to the evaluation of these needs.

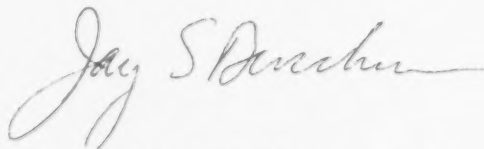
We can be proud that Rhode Island is distinguished as a leader in health statistics and their application to public health and safety. These strengths rest largely on the sound foundation provided by our cooperative health database. The Department of Health expresses its appreciation to the many organizations whose efforts support the data capabilities which have contributed to this edition of Rhode Island's Health.


H. Denman Scott, M.D., M.P.H.
Director of Health

Acknowledgements

This edition of Rhode Island's Health presents data on the uninsured population and their health service utilization.

The efforts of Miriam Campbell, Ph.D., consultant to the Office of Health Statistics and analyst and author of this report, are gratefully acknowledged. She provided the inspiration to compile data about the uninsured for this eleventh edition of Rhode Island's Health, and her dedication has led to its completion. The efforts of many reviewers inside and outside the Department are also deserving of thanks. Finally, we are grateful to Wayne Aldrich and his staff for their usual fine printing job.



Jay S. Buechner, Ph.D.

Chief

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RHODE ISLAND'S HEALTH 1989

The Uninsured Population in Rhode Island

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May 1990

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INTRODUCTION

This eleventh edition of Rhode Island's Health takes its inspiration from the recent activity of businessmen, labor leaders, legislators, journalists, and consumers to increase access to health care services in Rhode Island. Prior to the passage of Medicaid and Medicare in the mid-1960s, large segments of the population--the elderly in particular but also the disabled and those in poverty--had limited or no access to needed health care. The advent of public health insurance increased access for these special populations, but burgeoning health care costs have accompanied this expansion of health care opportunity.

As health insurance rates rise, a greater number of Americans who once had unequalled access to high quality health care are finding themselves priced out of the market. These include some with basic insurance and perhaps high deductibles who find themselves underinsured when a serious diagnosis is made as well as many with "pre-existing conditions" who are unable to afford the cost of experience-rated health insurance.

However, the burden falls most heavily on those who earn too much to qualify for Medicaid, are without work-related group insurance, and earn too little to afford private health insurance. These individuals it is believed avoid preventive check-ups and put off needed health care in the short run for financial reasons. The picture in the

long run is of health problems that become aggravated due to lack of appropriate treatment (e.g., septicemia) or normally treatable conditions that are found too late for low-cost or appropriate treatment (e.g., cervical or breast cancer). The result is millions of dollars of uncompensated care for which eventually everyone pays.

This eleventh edition of Rhode Island's Health provides a more comprehensive examination of the problem of uninsurance than is currently available. This report is devoted to the description of the uninsured, their demography, health service utilization, and estimates of the cost of their health care.

Most of the data displayed here are derived from the 1985 Rhode Island Health Interview Survey. It is expected that the age of these data poses a problem for estimation of the size of the uninsured population in 1990. However, it is expected that the results as they reflect characteristics of the uninsured provide a reasonably accurate picture of those who are uninsured in Rhode Island today.

THE SIZE OF THE UNINSURED POPULATION IN RHODE ISLAND

In 1985, the Rhode Island Department of Health conducted its fourth Health Interview Survey of the population of Rhode Island. Using a stratified sampling framework, telephone interviewing, and a random-digit dialling technique, 2,290 households statewide were contacted successfully, from which responses for 5,799 individuals were provided on issues related to their health status and service use (Campbell, Reilly, and Buechner, 1986; Rhode Island Health Services Research, Inc., 1985).

Of those Rhode Island Health Interview Survey respondents, approximately 8.4 percent answered negatively when asked if they were "now covered by a health insurance plan which pays any part of a hospital, doctor's or dentist's bill" (Campbell, Reilly, and Buechner, 1986). That figure, applied to the then current estimate of the Rhode Island population (U.S. Bureau of the Census, 1989), yielded the estimate of 82,000 Rhode Islanders without health insurance in 1987 (Office of Data Evaluation, 1988).

Since that time, the population of Rhode Island has grown, and estimates of the population in 1987 have been revised upward. A current estimate of the uninsured population in Rhode Island--based on the 1985 Rhode Island Health Interview Survey percentage uninsured and the current State of Rhode Island population estimate (approximately one million)--is 84,000. In other words, allowing only for

total population growth, the number estimated to be uninsured has grown two percent since 1987.

Yet economic circumstances have not been stable since 1985, and it is unlikely that the percentage of Rhode Islanders who are uninsured has remained unchanged since then. Nationally, the number of part-time workers, who have twice as high a risk of being uninsured as full-time workers (Short, Monheit, and Beauregard, 1989), has risen slightly since 1980 (U.S. Bureau of the Census, 1989c).

In addition, estimates of group health insurance coverage in Rhode Island in 1984 and 1987 derived from Current Population Survey national estimates of the percentage covered by a group health plan and controlling for the industrial distribution in Rhode Island (U.S. Bureau of the Census, 1985 and 1989) indicate that the percentage of employees covered through their employment may have declined from about 65 percent to 63 percent during that time in Rhode Island.

Moreover, throughout the six New England states, unemployment has been edging upward since the spring of 1989 (Federal Reserve Bank of Boston, 1989). The risk of uninsurance nationally is nearly twice as high in families without a working adult as in those with a working adult (Short, Monheit, and Beauregard, 1989).

In short, it is expected that a current survey of the population would reveal perhaps as many as 100,000 to

125,000 Rhode Islanders not covered by either public or private insurance in 1990.

DEMOGRAPHIC CHARACTERISTICS OF THE UNINSURED

The uninsured comprise a wide variety of individuals and families. Poorer persons without health insurance tend to be overrepresented by female-headed families and families with children, and in many of these families there is no working adult. In families with moderate income and some members uncovered, the majority have at least one full-time worker.

INCOME AND THE UNINSURED

The uninsured in Rhode Island are not a homogeneous group. They can be found at all levels of income. Thirty percent of those without insurance earned between 125 and 200 percent of poverty (in 1988 terms, from \$9,631 to \$15,408 for two people). Another 28 percent earned more than 200 percent of poverty (in 1988 terms, over \$15,408 for a family of two).

Table 1. Weighted Average Poverty Thresholds in 1988, United States

	Family Size								
	1	2	3	4	5	6	7	8	9+
Threshold	\$6,074	\$7,704	\$9,435	\$12,092	\$14,305	\$16,149	\$18,248	\$20,779	\$24,131

Source: Adapted from U.S. Bureau of the Census, 1989b.

In Table 2 is the distribution of the uninsured by their incomes relative to the poverty level. These figures are based on the survey responses of individuals willing to report their actual income (52 percent of the sample).

Income ranges shown here and through much of this report utilize poverty cut-offs often mentioned in policy alternatives addressing the problem of the uninsured.

Table 2. Insurance Status by Income, Rhode Island Health Interview Survey, 1985

Income relative to Poverty Level	Uninsured		Insured		Total	
	Percent	Weighted Number	Percent	Weighted Number	Percent	Weighted Number
Up to 100%	26.0%	79.0	74.0%	225.1	100.0%	304.1
101-125%	13.7	16.9	86.3	106.4	100.0%	123.3
126-150%	20.2	36.5	79.8	144.6	100.0%	181.1
151-185%	9.9	27.4	90.1	248.0	100.0%	275.4
186-200%	9.3	7.8	90.7	76.1	100.0%	83.9
More than 200%	3.2	65.2	96.8	1999.7	100.0%	2064.9

About one-fourth of those below the poverty line (earning up to 100% of poverty) had no insurance. Generally, those with higher incomes have a lower risk of being uninsured. This lowered risk can be seen in declining proportions uninsured with rising income. At incomes more than twice the poverty level for family size and age of the householder, about three percent were uninsured.

In Figure 1 is the distribution by family income of the insured and the uninsured. Of note, those with insurance as a group are considerably wealthier than those lacking insurance.

FIGURE 1. POPULATION DISTRIBUTION BY INSURANCE STATUS AND INCOME RELATIVE TO THE POVERTY LEVEL, RHODE ISLAND, 1985

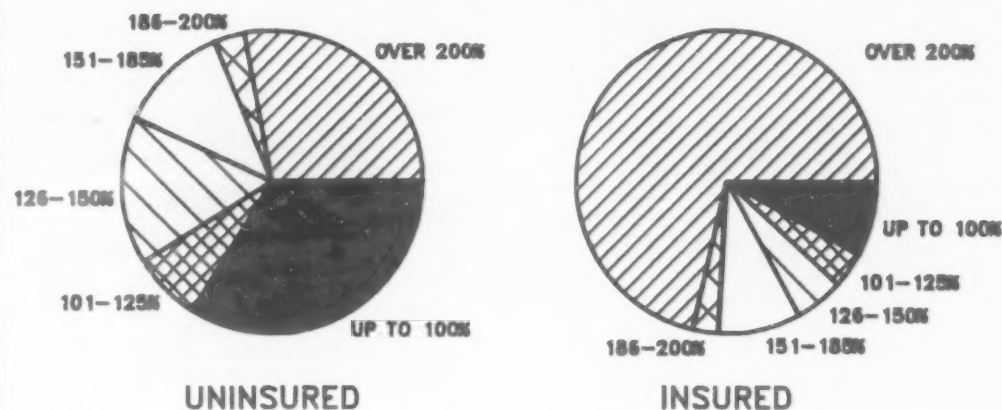


Table 3 shows the proportion of families that have one or more members uninsured. The data in this table are grouped at the family rather than the individual level, and "uninsured" here indicates that one or more family members have no source of health insurance.

One in five families below the poverty level lack coverage for all members. Complete family coverage is significantly more available in families with income at least twice the poverty level. Among families with incomes

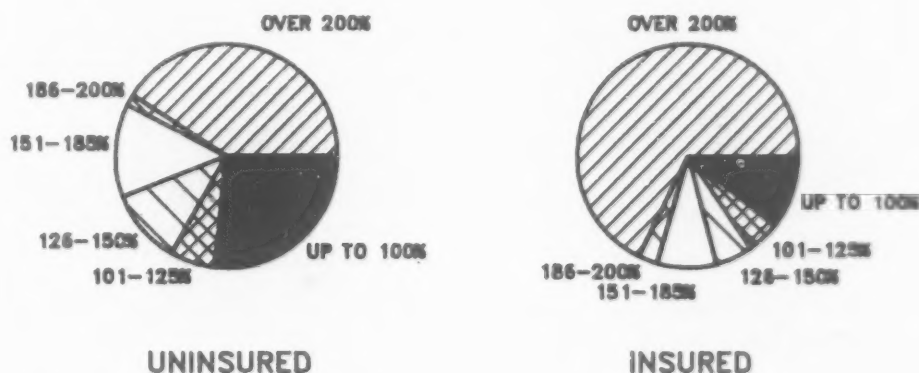
at 101 to 185 percent of poverty, about one family in seven has a family member without health insurance.

Table 3. Distribution of Rhode Island Families by Total Family Coverage, 1985

Family Income Relative to the Poverty Level	All Family Members Insured		All Families
	No	Yes	
0-100%	21.0%	79.0%	100.0%
101-125%	12.8	87.2	100.0
126-150%	17.5	82.5	100.0
151-185%	14.0	86.0	100.0
186-200%	5.9	94.1	100.0
Over 200%	6.0	94.0	100.0
All Income Levels	9.6	90.4	100.0

Figure 2, comparable to Figure 1, shows greater wealth among families with all insured members.

FIGURE 2. DISTRIBUTION OF FAMILIES BY INSURANCE STATUS AND INCOME RELATIVE TO THE POVERTY LEVEL, RHODE ISLAND, 1985



Moreover, if any family members are uninsured, insurance for the remainder is least available in families at the poverty level (Table 4). At the poverty level, virtually all family members are uninsured in families with one or more uninsured members (90 percent). Above twice the poverty level, only half (49 percent) of the individuals in families with uncovered members are uninsured. In all other income categories, the percentage of family members who were uninsured in families with incomplete coverage was above 70 percent. Overall, in those families lacking insurance for some members and earning up to 200 percent of poverty, 84 percent of the individuals were uninsured.

Table 4. Insurance Status of Individuals in Families with One or More Members Uninsured by Income, Rhode Island, 1985

Percentage of Family Members Who are:	Income Relative to Poverty Level						Total
	0- 100%	101- 125%	126- 150%	151- 185%	186- 200%	Over 200%	
Uninsured	90.4%	71.0%	84.2%	76.6%	89.8%	49.3%	70.3%
Insured	9.6	29.0	15.8	23.4	10.2	50.7	29.7
All Members	100.0	100.0	100.0	100.0	100.0	100.0	100.0

AGE OF THE UNINSURED

As shown in Figure 3, one-third of the uninsured were children under the age of 18 years (34.3%). In families with incomes up to 125 percent of poverty, however, children comprise nearly one-half of those without health coverage (see Table 5). Table 6 shows that three-fourths (74.7%) of

all uninsured children live in households with incomes at or up to 150 percent of the poverty level.

FIGURE 3. POPULATION DISTRIBUTION BY INSURANCE STATUS AND AGE, RHODE ISLAND, 1985

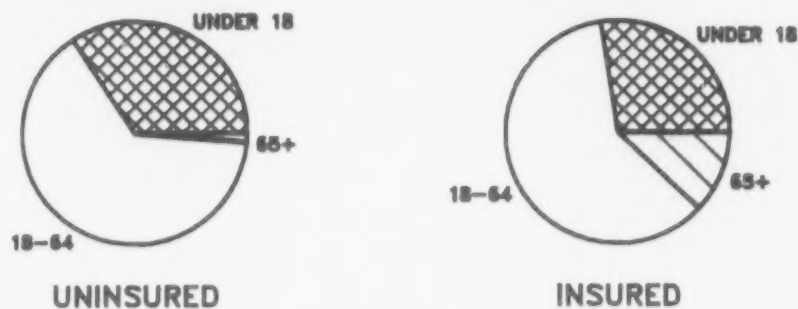


Table 5. Age of the Uninsured by Income and Age of the Insured, Rhode Island, 1985

Age in Years	Income Relative to Poverty Level						All Uninsured Insured	
	0- 100%	101- 125%	126- 150%	151- 185%	186- 200%	Over 200%		
Under 18	46.2%	47.5%	41.1%	31.6%	50.0%	11.7%	34.3%	27.5%
18-64	50.0	52.5	58.9	68.4	50.5	88.3	64.5	60.5
65+	3.8	0.0	0.0	0.0	0.0	0.0	1.3	12.0
All Ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The uninsured of working age, on the other hand, were more likely to have moderate income. Among the uninsured 18 to 64 years, 38 percent had incomes above 200 percent of poverty (Table 6). In fact, the uninsured in this age group comprise 88 percent of the noninsured population with family incomes above 200 percent of poverty (Table 5).

Table 6. Distribution of the Uninsured by Age by Income, Rhode Island, 1985

Age in Years	Income Relative to Poverty Level						All Incomes
	0- 100%	101- 125%	126- 150%	151- 185%	186- 200%	Over 200%	
Under 18	45.8%	10.1%	18.8%	10.8%	4.9%	9.6%	100.0%
18-64	26.3	5.9	14.3	12.5	2.6	38.3	100.0
65+	100.0	0.0	0.0	0.0	0.0	0.0	100.0

The availability of Medicare to the vast majority of elderly accounts for the minimal representation of elders among the uninsured. Only one percent of those 65 years or older were found to be without health insurance (Table 5). Despite their small numbers (about 2,000 in Rhode Island in 1988), it should be noted that due to the increasing likelihood of infirmity with age, the health service needs of the elderly uninsured are potentially greater than are the needs of the uninsured in other age groups.

GENDER OF THE UNINSURED

The percentage of women among uninsured adults is equal to the percentage female among all adults in Rhode Island. Overall, 53 percent of the uninsured 18 years or older are

women; the percentage female in the general population in July 1988 was also estimated at 53 percent (U.S. Bureau of the Census, 1989a).

However, female representation by family income group implies that uninsured women are less able to afford health insurance out of pocket than are men. For those uninsured individuals living in poverty, 79 percent were female. Among those without insurance who earn more than double the poverty threshold, however, 59 percent are male.

Table 7. Uninsured Population Over 17 Years in Rhode Island by Income and Sex, 1985

Income Relative to Poverty Level	Female	Male	Total
Up to 100%	78.6%	21.4%	100.0%
101-125%	55.1	44.9	100.0%
126-150%	49.1	50.9	100.0%
151-185%	29.1	70.9	100.0%
186-200%	72.7	27.3	100.0%
More than 200%	40.6	59.4	100.0%
Total	52.6	47.4	100.0

LABOR FORCE ACTIVITY STATUS OF THE UNINSURED

Uninsured adults with low income are less likely to be working than are those with earnings more than double the poverty level. Nearly 60 percent of wealthier uninsured adults were employed full-time. Among uninsured adults with incomes at or below twice the poverty threshold, only one-third (35.6 percent) were employed on a full-time basis.

Forty-eight percent of uninsured, low-income adults were not currently working. Of these, approximately

one-half were homemakers (i.e., 22 percent of uninsured adults with up to 200 percent of poverty). In an analysis of these poorer families with an uninsured homemaker (not shown), a working spouse was present in 52 percent of the families, but in a sizeable minority (31 percent), there was either a disabled spouse or no other adults.

Table 8. Uninsured Population Over 17 Years in Rhode Island by Income, Activity Status and Sex, 1985

Activity Status	Up to 200 Percent of Poverty			Over 200 Percent of Poverty		
	Female	Male	Total	Female	Male	Total
Work Full-time	29.6%	44.6%	35.6%	60.3%	57.9%	58.9%
Work Part-time	17.3	15.7	16.7	6.2	23.2	16.3
Laid Off	0.0	11.5	4.6	6.0	7.2	6.7
Unemployed	6.1	0.0	3.6	2.8	1.5	2.0
Temporarily Disabled	0.0	8.6	3.4	0.0	0.0	0.0
Disabled	2.9	7.9	4.9	0.0	0.0	0.0
Retired	6.3	0.0	3.7	0.0	0.0	0.0
Homemaker	32.6	6.3	22.0	24.7	0.0	10.0
Student	5.3	1.1	3.6	0.0	8.3	4.9
Other	0.0	4.3	1.7	0.0	1.9	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

HEALTH OF THE UNINSURED

In the uninsured population in Rhode Island about two-thirds (65.4 percent) reported being in excellent or very good health. This is comparable to the figure for the insured population. The preponderance of healthy individuals in the uninsured population is not unusual given their youth: the percentage under age 55 is three times

higher in the uninsured than in the insured population. When those over 55 years are excluded, on the other hand, the uninsured appear both healthier and sicker than the insured. This suggests that the uninsured are not a homogeneous group. One portion may be young and healthy and another disabled or infirm.

Table 9. Health Status by Insurance, Rhode Island, 1985

Health Status	Total Population		Population Under 55 Years	
	Uninsured	Insured	Uninsured	Insured
Excellent/Very Good	67.2%	65.4%	74.6%	67.9%
Good	21.9	26.2	19.5	27.7
Fair/Poor	10.9	8.4	6.0	4.4
Total	100.0	100.0	100.0	100.0

There were no significant differences in health status among the uninsured population by income level.

HEALTH SERVICE UTILIZATION BY THE UNINSURED

Health care visits are lower for those without insurance. The uninsured see a physician or dentist less often than does an individual with insurance, and the uninsured are less likely to have a regular source of health care. Two explanations are most likely for this lower level of care. First, some of the uninsured may feel a low need for health services, whether preventive or for an acute problem, and second, others of the uninsured may delay receipt of needed services for financial reasons. In either

case, the result is likely to be neglect of appropriate medical attention in the long run with possible health consequences.

PHYSICIAN VISITS

Uninsured individuals with higher incomes were less likely to have visited a physician in the twelve months prior to survey than the uninsured with up to 200 percent of the poverty threshold. Among the uninsured the proportion who did not visit a physician generally rose with income, from about one-fifth of those in poverty to one-half of those with over 200 percent of the poverty threshold.

Table 10. Number of Physician Visits by the Uninsured by Income, Rhode Island, 1985

Number of Visits	Income Relative to Poverty Level					
	0- 100%	101- 125%	126- 150%	151- 185%	186- 200%	Over 200%
None	20.7%	32.3%	45.5%	27.8%	25.0%	46.8%
One	22.0	39.3	17.2	23.7	50.0	24.9
Two	23.0	6.9	2.4	22.6	0.0	9.5
Three	15.5	10.7	1.9	0.0	25.0	5.1
Four or More	18.8	10.7	32.9	25.9	0.0	13.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

In Table 11 the uninsured are compared to the insured under 55 years. The exclusion of those over age 54 was intended to heighten comparability between the two groups. In general, the uninsured visited the physician less than did the insured in the twelve months prior to the survey. A third of those with insurance coverage, but only one-fourth

of the uninsured, saw their physician once. Similar proportions of both the insured and the uninsured had two or more visits. These findings imply that preventive medicine is less likely to be obtained by the uninsured.

Table 11. Number of Physician Visits by Insurance Status, Rhode Island, 1985

Insurance Status	Physician Visits in the Past Twelve Months					Total
	None	One	Two	Three	Four or More	
Uninsured	33.9%	24.4%	13.9%	8.5%	19.3%	100.0%
Insured Under 55 Years	24.6	32.4	14.9	7.8	20.4	100.0

HOSPITALIZATIONS

Low-income uninsured (up to 200 percent of poverty) were not significantly different from those uninsured with twice the poverty threshold in the propensity to be hospitalized in the twelve months prior to the survey. Neither did the uninsured differ in the risk of hospitalization from those under age 55 with insurance.

Table 12. Number of Hospitalizations by the Uninsured by Income, Rhode Island, 1985

Number of Hospitalizations	Income Relative to Poverty Level						Total
	0-100%	101-125%	126-150%	151-185%	186-200%	Over 200%	
None	78.7%	100.0%	89.8%	95.1%	100.0%	93.5%	94.2%
One	16.3	0.0	8.2	4.9	0.0	5.5	4.9
Two	2.8	0.0	1.9	0.0	0.0	1.0	0.9
Three or More	2.1	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0%

SOURCE OF REGULAR MEDICAL CARE

The uninsured with higher family income (over 200 percent of poverty) are more likely to have no regular place

to receive medical care or are more likely to use an outpatient clinic than are those uninsured with less family income. These poorer individuals, however, are five times more likely to use a community health center.

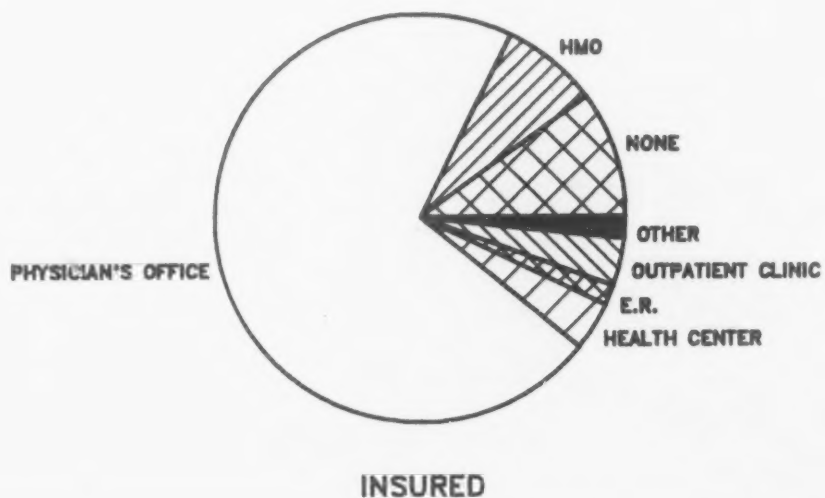
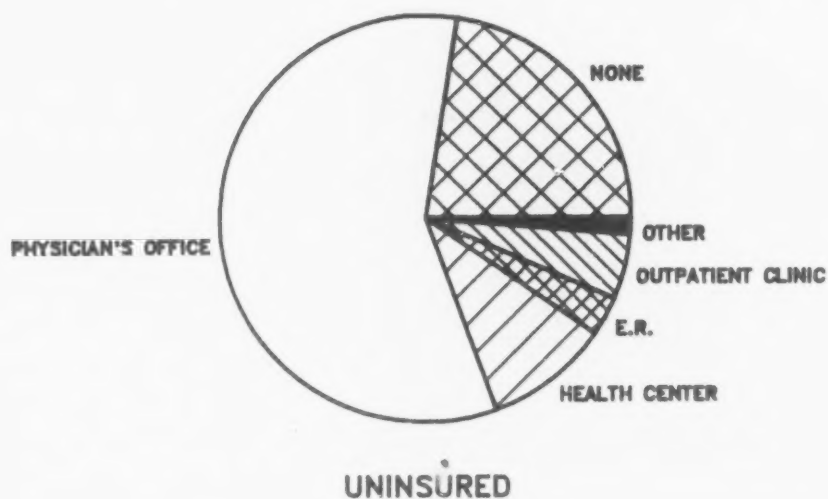
Table 13. Source of Regular Medical Care for the Uninsured by Income, Rhode Island, 1985

Source of Regular Medical Care	Income Relative to Poverty Level						Total
	0-100%	101-125%	126-150%	151-185%	186-200%	Over 200%	
None	16.4%	20.8%	27.5%	19.7%	0.0%	32.3%	28.7%
Physician's Office	63.8	15.0	42.4	61.4	100.0	48.3	54.0
Health Center	14.6	56.9	30.0	17.1	0.0	4.3	3.8
Outpatient Clinic	5.2	7.3	0.0	1.8	0.0	13.5	12.0
Other	0.0	0.0	0.0	0.0	0.0	1.6	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0%

As shown in Figure 4, those without insurance coverage are two and one-half times more likely to use a community health center than are those under age 55 who have insurance (9.8 versus 3.8 percent). However, as the insured population is so much larger (92 percent of the total population), the majority of health center visitors carry some form of health insurance, including Medicaid.

The uninsured were also twice as likely to have no regular source of care. Moreover, regular hospital emergency room (E.R.) users were more likely to be found among those without insurance coverage: the insured under 55 years were twice as likely as the uninsured to use an E.R. for regular health care.

FIGURE 4. POPULATION DISTRIBUTION BY
INSURANCE STATUS AND SOURCE OF REGULAR
MEDICAL CARE, RHODE ISLAND, 1985



A physician's office was mentioned more often among those with insurance. Finally, none of those without insurance reported using a health maintenance organization regularly for health services.

Table 14. Source of Regular Medical Care by Insurance Status, Rhode Island, 1985

Source of Medical Care	Insured under Under Age 55	Uninsured
None	10.0%	28.7%
Health Maintenance Organization	7.7	0.0
Physician's Office	71.4	54.0
Health Center	3.8	3.8
Hospital Emergency Room	1.6	0.9
Outpatient Clinic	3.8	12.0
Other	1.7	0.6
Total	100.0	100.0

TIME SINCE LAST DENTAL VISIT

The uninsured with incomes less than 200 percent of the poverty threshold are up to 15 times more likely than higher-income uninsured persons to have never visited a dentist. Similar proportions of both income groups, however, have been to the dentist within the twelve months prior to the survey.

Similar proportions of the uninsured and those under age 55 who have insurance had never been to a dentist. Those without insurance, however, were significantly less likely to have visited a dentist in the twelve months prior to survey.

Table 15. Time Since Last Dental Visit for the Uninsured by Income and the Insured Under 55 Years, Rhode Island, 1985

Time of Last Dental Visit	Income Relative to Poverty Level						All Uninsured	Insured Under 55
	0-100%	101-125%	126-150%	151-185%	186-200%	Over 200%		
Within 6 months	26.6%	13.3%	21.4%	38.7%	15.6%	29.1%	28.0%	52.6%
6-12 months	24.3	28.4	30.5	19.0	31.2	35.5	35.1	21.0
Over 1-2 years	21.4	6.0	4.8	31.5	37.5	24.7	25.8	10.2
Over 2-4 years	7.9	13.8	12.1	0.0	0.0	3.3	3.1	4.5
Over 4 years	5.5	12.1	6.2	0.0	0.0	5.2	4.8	3.5
Never	14.3	32.4	25.0	10.8	15.6	2.1	3.2	8.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

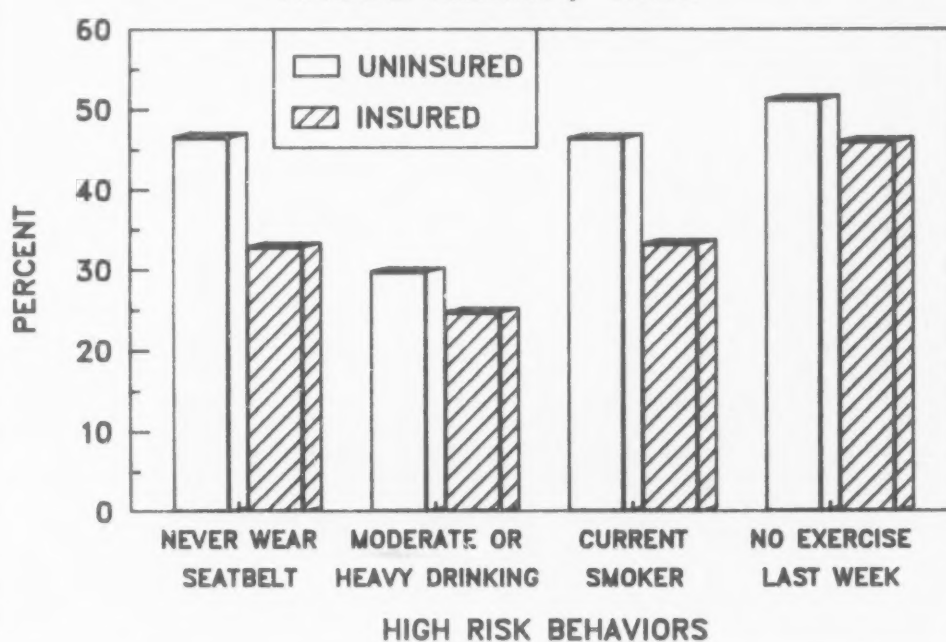
HEALTH BEHAVIORS OF THE UNINSURED

The uninsured as a group lead more risky lives than do the insured (Figure 5). They are less likely to use seatbelts regularly, so that in an automobile crash--which occurs once every 20 minutes in Rhode Island*--the uninsured are more likely to be seriously injured. Uninsured adults (ages 18 or older) are more likely as a group to smoke, which is linked directly to the major causes of death in Rhode Island. In addition, although differences are not statistically different, a slightly higher percentage of uninsured adults report consuming alcoholic beverages on a daily basis (moderate or heavy drinking) or not exercising

*According to the Governor's Office on Highway Safety, there were 26,413 motor vehicle crashes in Rhode Island in 1987 (personal communication, 2/19/90).

the week prior to the survey. As a result of these health behaviors, there would appear to be significant, negative consequences for their future use of health services.

FIGURE 5. PERCENT REPORTING HIGH RISK BEHAVIORS AMONG THE INSURED POPULATION UNDER AGE 55 AND THE INSURED POPULATION, RHODE ISLAND, 1985



SEATBELT USE

Seatbelt use has been shown to prevent serious injury or death in automobile crashes. Among the uninsured who use an

automobile, those with family income at or below 200 percent of poverty are more likely to report never using a seatbelt than are uninsured individuals with higher incomes.

Table 16. Seatbelt Use Among the Uninsured by Income and the Insured Under 55 Years,
Rhode Island, 1985

Seatbelt Use	Income Relative to Poverty Level						All Uninsured	Insured Under 55
	0- 100%	101- 125%	126- 150%	151- 185%	186- 200%	Over 200%		
All/Most Times	21.7%	12.4%	28.1	22.2%	11.4%	23.5%	28.3%	38.3%
Sometimes	17.4	0.0	2.4	24.0	0.0	19.0	16.1	15.5
Once in a While	2.8	0.0	14.1	0.0	11.4	16.3	9.0	12.4
Never	58.0	87.6	55.4	53.7	77.3	41.2	46.5	32.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Similar proportions of both high and low income groups without insurance coverage, about one-fifth, however, report using a seatbelt all or most of the time when in a vehicle. The uninsured are significantly less likely to use a seatbelt regularly than are individuals who are insured, of whom over one in three report regular seatbelt use.

ALCOHOL CONSUMPTION AMONG ADULTS

Heavy use of alcohol is linked clinically to diseases of the liver, brain, heart, and stomach. Regular alcohol use among pregnant women results in severe malformation and death in newborns. Adult alcohol use (see Campbell, 1986, for definitions) by insurance status and family income does not reveal noteworthy patterns likely to suggest health differences between income or insurance groups.

Table 17. Adult Alcohol Consumption by the Uninsured by Income and the Insured Under 55 Years,
Rhode Island, 1985

Alcohol Use	Income Relative to Poverty Level						All Uninsured	Insured Under 55
	0- 100%	101- 125%	126- 150%	151- 185%	186- 200%	Over 200%		
Never	52.1%	53.4%	44.8%	27.9%	77.3%	19.3%	31.0%	25.9%
Former drinker	3.0	0.0	3.3	6.2	0.0	0.0	2.3	3.8
Abstain	8.5	46.6	13.8	0.0	0.0	12.5	10.0	14.5
Light	13.0	0.0	24.3	25.9	22.7	33.1	26.9	31.1
Moderate	19.2	0.0	10.7	36.4	0.0	28.5	21.8	19.5
Heavy	4.2	0.0	3.1	3.6	0.0	6.7	7.9	5.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SMOKING STATUS AMONG ADULTS

Smoking is linked to lung cancer, other lung diseases, heart disease, stroke, maternal health conditions, health problems among newborns, and respiratory problems among nonsmoking family members, particularly children.

As compared to insured adults, a higher proportion of those age 18 or older who are without insurance currently smoke (Table 18).

Table 18. Adult Smoking Behavior of the Uninsured by Income and the Insured Under 55 Years,
Rhode Island, 1985

Smoking Status	Income Relative to Poverty Level						All Uninsured	Insured Under 55
	0- 100%	101- 125%	126- 150%	151- 185%	186- 200%	Over 200%		
Current smoker	32.5%	28.9%	21.4%	33.5%	11.4%	43.7%	46.4%	33.2%
Former smoker	4.9	0.0	9.6	5.6	13.6	14.5	13.9	19.7
Never smoked	62.7	71.1	69.0	60.9	75.0	41.8	39.8	47.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

However, this pattern breaks down when smoking habits among income groups are examined. Nonsmokers are significantly more likely to be found among the uninsured with up to twice the poverty level than among either the uninsured with more than twice the poverty threshold or those under 55 years who have insurance. This finding holds for both categories of nonsmoking adults. Poorer, uninsured individuals are not only less likely to be former smokers, they are also more likely never to have begun smoking.

On the other hand, the uninsured with higher incomes are more likely than those with lower incomes to smoke currently. It appears likely that the uninsured persons responsible for a higher propensity to smoke among the uninsured are individuals with relatively higher incomes.

EXERCISE IN THE PAST WEEK

Adult participants of the Rhode Island Health Interview Survey were asked about physical exercise performed in the week prior to the survey, both the kind of exercise and the time spent exercising. Reasonable physical exercise, dependent upon age and physical condition, has been shown to improve cardiovascular health.

Results from the 1985 Rhode Island Health Interview Survey indicate no sizeable differences in the amount of exercise performed between income groups among the uninsured or between the insured and the uninsured.

Table 19. Exercise Among Uninsured Adults by Income and the Insured 18 to 55 Years,
Rhode Island, 1985

Exercise Last Week	Income Relative to Poverty Level						All Uninsured	Insured Under 55
	0- 100%	101- 125%	126- 150%	151- 186%	186- 200%	Over 200%		
None	51.7%	63.4%	65.5%	35.9%	100.0%	41.5%	51.2%	46.0%
Light	36.7	15.9	27.0	30.3	0.0	36.0	26.5	27.7
Moderate	7.7	4.8	7.5	18.8	0.0	14.2	15.4	16.0
Heavy	3.9	15.9	0.0	15.0	0.0	8.3	6.9	10.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

UNCOMPENSATED CARE IN RHODE ISLAND HOSPITALS

On the rise, along with the number of the uninsured, has been the value of uncompensated care provided by Rhode Island's short-term hospitals. Uncompensated care is made up of two components. The largest part is bad debt, the billing for services performed but never collected. Bad debt is comprised of disputed billings, billings to uninsured or underinsured individuals who are unable to pay, and billings to persons who choose not to pay.

The other aspect of uncompensated care is free care, services rendered but never billed as a result of a prospective determination of the patient's inability to pay (Cryan, 1989). Free care is most closely related to a lack of insurance.

In 1982, short-term hospitals in Rhode Island provided over four million dollars in free care (adjusted for actual cost). The cost to hospitals of services provided as bad

debt in that year was eight million dollars. By 1988, the cost of bad debt for these hospitals had risen over 18 percent on average annually to \$21,904,000. Free care costs grew by seven percent on average annually between 1982 and 1988. The total adjusted cost to hospitals of free care in 1988 was over six million dollars (Cryan, 1989).

Table 20. Cost-Adjusted and Inflation-Adjusted Uncompensated Care Provided by Community Hospitals in Rhode Island, 1985

Year	Adjusted Cost Basis			Cost Adjusted for Inflation*		
	Free Care	Bad Debt	Total	Free Care	Bad Debt	Total
1982	\$4,262	\$ 8,107	\$12,369	\$4,720	\$ 8,978	\$13,698
1983	5,290	10,253	15,543	5,264	10,202	15,466
1984	4,747	11,976	16,723	4,347	10,967	15,314
1985	5,113	15,291	20,404	4,404	13,171	17,575
1986	6,538	15,267	21,805	5,311	12,402	17,713
1987	6,033	17,365	23,398	4,584	13,195	17,780
1988	6,080	21,904	27,984	4,225	15,222	19,447

Taking the cost of inflation into account, however, hospitals in Rhode Island provided less free care in 1988 than in 1982. The cost of free care, adjusted for inflation, declined by ten percent during this period. The inflation-adjusted cost of bad debt, on the other hand, soared 70 percent between 1982 and 1988. Whether because patients are unwilling to declare themselves unable to pay or because hospitals are more willing to assign payment in

*Costs for adjusted by the Hospital Consumer Price Index, 1982-1984 = 100 (U.S. Bureau of the Census, 1989c).

questionable cases, hospitals are bearing a higher burden today in unresolved bills.

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